SUSTAINABILITY OR SUSTAINABLE DEVELOPMENT A RESPONSIBILITY OF THE ENVIRONMENTAL SPECIALISTS

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Rezumat
Dezvoltarea comunitară are în vederea încurajarea şi implicarea managementului resurselor umane în traseul menit dezvoltării individuale şi sociale. Cuantificarea capitalului uman oferă informaţiile necesare proiectării unei strategii orientată spre resurse în scopul dezvoltării organizaţionale.În România conform informaţiilor privind dinamica indicatorilor economici deosebim o creştere economică pozitivă, dar inflaţia constituie o problemă atât din punct de vedere intern cât şi extern.Prin analiza performantelor dezvoltării din ultimii ani descoperim progrese în inovare cercetare – inovare, în dezvoltarea antreprenorială a întreprinderii, în gradul de ocupare a resurselor umane şi coeziunea economică, în dezvoltarea economică sustenabilă şi în liberalizarea pieţei.Indicatori precum numărul şi densitatea populaţiei, repartiţia teritorială a acesteia, structura populaţiei pe sexe, grupe de varstă, medii rezidenţiale, structura etnică, religioasă, structura socio-economică şi după pregătirea scolară, ca şi indicatorii referitori la locuinţe conturează un tablou cuprinzator al dezvoltării potenţialului uman conform standardelor europene. Prin creşterea competitivităţii şi a globalizării piaţa muncii suferă anumite transformări din punct de vedere al integrării alături de celelate sectoare sociale. Evoluţia societăţii determină construirea unei societăţi şi economii bazate pe cunoaştere în funţie de valorile modelului social european, în domeniul managementului resurselor umane vor contribui la integrarea socială dezvoltarea unor noi schimbări la nivelul dialogului social.

Cuvinte cheie: umane, management, educaţie, etic, daune, natural, mediu, responsabilitate, dezvoltare durabilă.

Abstract
The community development has in view the encouragement and the involvement of the human resources management on the track meant for the individual and social development. The quantification of the human capital offers the necessary information for the design of a strategy oriented towards resources for the organisational development. In Romania, according to the information regarding the dynamic of the economic indicators, we notice a positive economic growth, but the inflation constitutes a problem from an internal as well as external point of view. By analysing the development performances of the last years, we discover progresses in innovation, research, in the entrepreneurial development of the company, in the degree of occupation of the human resources and the economic cohesion, in the sustainable economic development and in the liberation of the market. Indicators like the number and density of the population, the territorial distribution of the population, the structure of the population on genders, age groups, residential environments, ethnical structure, religion, social and economical structure and education, as well as the indicators referring to the housings shape a complete picture of the human potential development according to the European standards. Through the increase in competitiveness and of the globalisation, the workforce market suffers certain transformations from the integration point of view together with the other social sectors. The evolution of the society determines the building of a society and economy based on the knowledge according to the European social model values, in the field of the human resources management they will contribute to the social integration, to the development of new changes at the level of social dialogue.

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The last decades got us used to the reality of the "leaps". In the most varied fields of the human's life, we are the witnesses to some triumphal mutations and stupefying progresses that are taking place imperatively and simultaneously. Is there really a price to pay for the progress? Absorbed with a delirious speed in some kind of a time tunnel, the human being is forced to accept the idea that frontier of the impossible became extensible in all its meanings. The undreamed of and fantastical chances become common places from one day to another. These are the matters and thoughts tried to be answered in the lines of this article.

Keywords: Human resources,management, education, ethic, damages, natural environment, responsibility, sustainable development.

JEL CLASSIFICATION: Q01, Q56, Q57.

1. INTRODUCTION

Environment protection as a responsibility of the environmental specialists focuses upon the issues of localizing and repairing the damages caused to the environment by the activity of the antroposphere.

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The implementation of the technological systems used in the environmental issues implies the involvement of the three main domains of the society: the politics – through its laws and regulations, the economy – through the market and the science, and the technology which also actuates through knowledge the technological means of nowadays. The action manner of these three factors is systematically described in the figure 1 (The relationship – Politics-Economy- Science-Technology).

Thus we can distinguish more trends within the continuous metamorphoses of the sustainable development registered at the level of the environment protection, concretized in concepts:

1. The social technological concept of sustainable development regarding the environment protection

The environment protection as a basic responsibility of the human society is based on two concepts or principles:

b) The socio-cultural concept upon life and life protection. This concept is deeply rooted in the cultural tradition of the human society.

b) The scientific-technological concept of sustainable development. This concept is a *bipolar* one, as it is based both on the scientific-technological point of view on life, and on the traditional socio-cultural concept.

The concept of *sustainability* was introduced in ecology by Lester Brown at the beginning of 1980, which defined the sustainable society as capable of satisfying its necessities without diminishing the chances

of the future generations.

2. Sustainability or sustainable development

Sustainability is a characteristic of a process or state which can be maintained at a certain level for an unlimited period of time. Ecologically speaking, sustainability aims at the achievement of the best results both for the human being and for the environment, in present and for the years to come.

Sustainability relates to the social, economic, institutional aspects of the human society and of the environment. One of the best known definitions of sustainability is the following: "The involvement of the humanity into a life system designed to be viable on a development basis meant to ensure a high quality of life for all the individuals making the society and at the same time, to preserve continuously the natural ecosystems in their current condition".

Sustainability may be defined both qualitatively, in words as an ethical-ecological assertions, and quantitatively, from the point if view of the life system and of the course of some factors within the system in the form of some indices of sustainability.

From a qualitative point of view, the ethic-ecological sustainability makes reference to the fact that we should not invent some new "sustainable" societies from scratch, but, on the contrary, we can mould them in accordance with the natural ecosystems, which are actually sustainable communities of micro organisms, plants and animals.

Taking into account that the Earth has the inherent capacity of maintaining life, a sustainable human society is designed so as its economy, life style, physical structure and technologies should not negatively interfere with the capacity of nature to sustain life. A sustainable community forms its life styles over time through a continuous interaction with other living systems.

Sustainability implies that the first step to building sustainable human societies consists of understanding the organization principles common to all the living creatures which the ecosystems developed in order to maintain life.

Thus, it is well known that the living systems are self-generating networks, organizationally closed within some boundaries (the living cell), but however, opened to some continuous flows of matter and energy. This systemic perception of life allows us to elaborate a set of organizational principles which are actually the basic principles of ecology, which can be used as guiding principles for the setting up of a sustainable human society.

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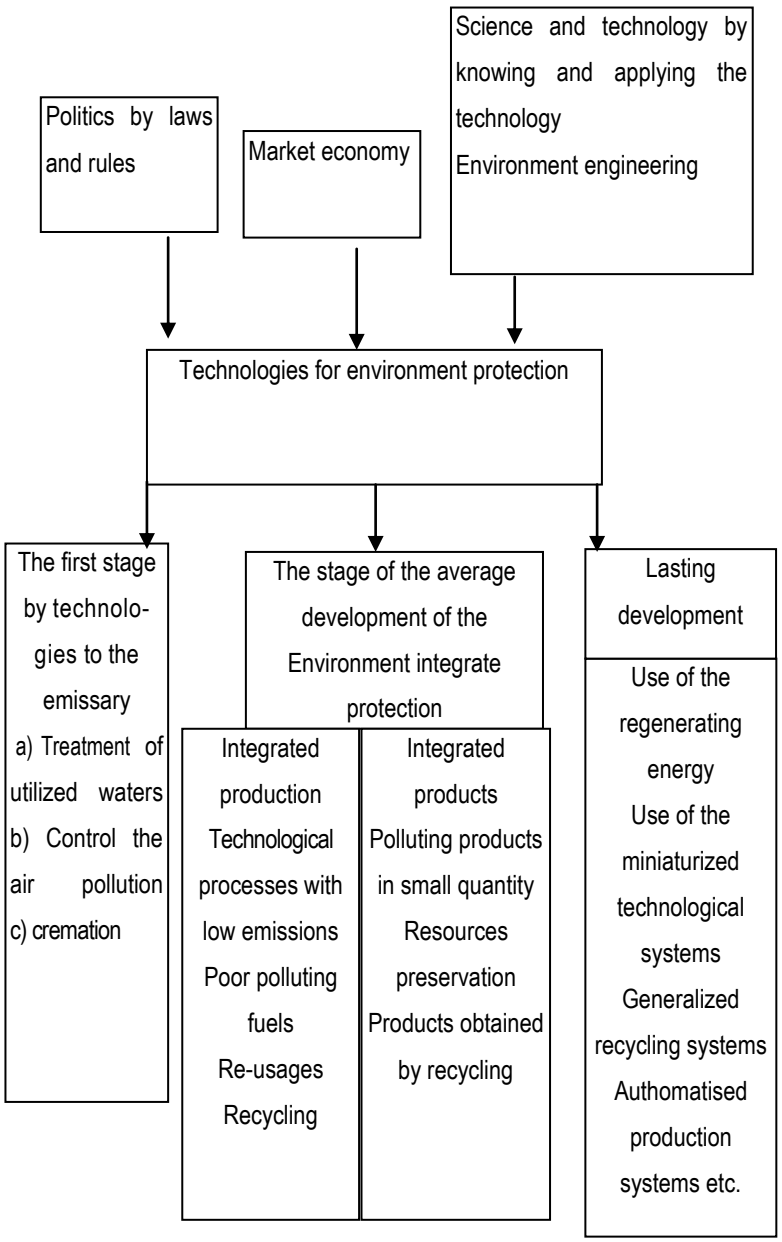

FIG. 1 THE TRIAD: POLITIC-ECONOMIC-SCIENCE

It is generally considered that ecology has *six principles* which are critical for the maintenance of life (Capra, 1991):

a) *Networks.* At all levels, in biosphere there are living systems inside other living systems – networks inside other networks. The boundaries among them are not for separation, but for identification. All the networks communicate among them and share their resources.

b) *Cycles.* The living organisms are fed in continuous flows (cycles) of matter and energy in order to remain alive, producing at the same time, residues, as the residues produced by a certain species represent the nourishment of other species.

c) *The solar energy* used in the chlorophyllous synthesis is the only form of energy which sets in motion the ecological cycles.

d) *Partnership.* The exchanges of matter and energy taking place within an ecosystem are sustained through cooperation at all the levels of the ecosystem.

e) *Diversity.* The ecosystems gain stability and flexibility through the wealth and complexity of the ecological networks.

f) *The dynamic balance.* An ecosystem consists of a flexible and fluctuating network. Flexibility is a consequence of the numerous feed-back series which maintain the dynamic balance of the system.

In the future, the survival of the humanity will depend on the *ecological education* which represents the capacity to understand the fundamental principles of ecology and to live in accordance with them, in order to sustain the network of life.

The ecological education is the first step to sustainability, and it should be followed by a second one in the direction of the eco-design. Indeed, in order to ensure sustainability it is imperiously necessary to apply our ecological knowledge in the re-design of the social institutions and technologies, in order to annihilate the gap between the human projects and the natural systems (Mazilu, 2009).

On the contrary, in a world dominated by the power of Science, the integration into a sustainable society and even in the educational system of the youth in the present day's school cannot exclude the coordinates of the responsible society, ruled as well by individuals, in which it is imperiously necessary to accommodate and to observe its principles of sustainability.

2. RESULTS AND DISCUSSION

Starting from the idea according to which the humanity entered into a new era of its existence, when its potential force, acquired through the technical-scientific achievements, has become comparable to the forces of the nature, under the conditions of the amplification of the anthropogenic pressure upon the Earth, it is important to keep into account the vulnerability of the environment, not to allow pressures upon the quite fragile balance of the nature.

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The ecological "plasticity" of the biosphere allowed the human being to exploit some of its elements according to his needs. The changes made by the man into the biosphere cannot however exceed certain limits, as "after years of errors, we are finally beginning to admit that the maintenance of the economic prosperity depends on the ecological management, and we will only have benefits from taking care of out planet" .

The interdisciplinary approach of the educational phenomenon establishes correlations with other socio-human sciences (Geography, Biology, Psychology, Sociology, The Theory of Information) with the purpose of elaborating the contents, modernizing the didactic methodology, the conception of some efficient learning theories, the improvement of the assessment, the diversification of the organization forms and so on (see table 1).

Lately, the issue of "savoir-faire" through education is being discussed, which should constitute the condition of creating assets and spiritual values. Narrowly speaking, with reference to the ecological education, "savoir" represents the ensemble of responsible knowledge, aptitudes and skills in relation to the nature, which can be put into practice.

Science becomes a force to the extent in which capacities, abilities, skills are formed and developed through education and training.

3. CONCLUSIONS

In conclusion, *the ecological system includes through its own biotic component, the man's existence* (and consequently, it is imperative to adopte an ecological behaviour witch must aim to shape some series of "obstacles" –of informal, socio-cultural nature of "shifting" responsibilities, of perceiving the consequences of a cautious ecological behaviour, reforming of the paradigm of the holist or ecological theory[1]) (Capra, 1991).

- The carrying out of all the economical processes on teh bases of the natural resources existing in the ecological system:
- Man's dependence on the diversity of the natural resources of the ecological system;
- the willy-nilly taking over by the ecological system of all the indefinite "outputs" of the other two subsystems (economic – pollution, uncontrolled and excessive consumption of natural resources and the social one – the uncontrolled demographic increase and so on.).

[1] See figure 2.

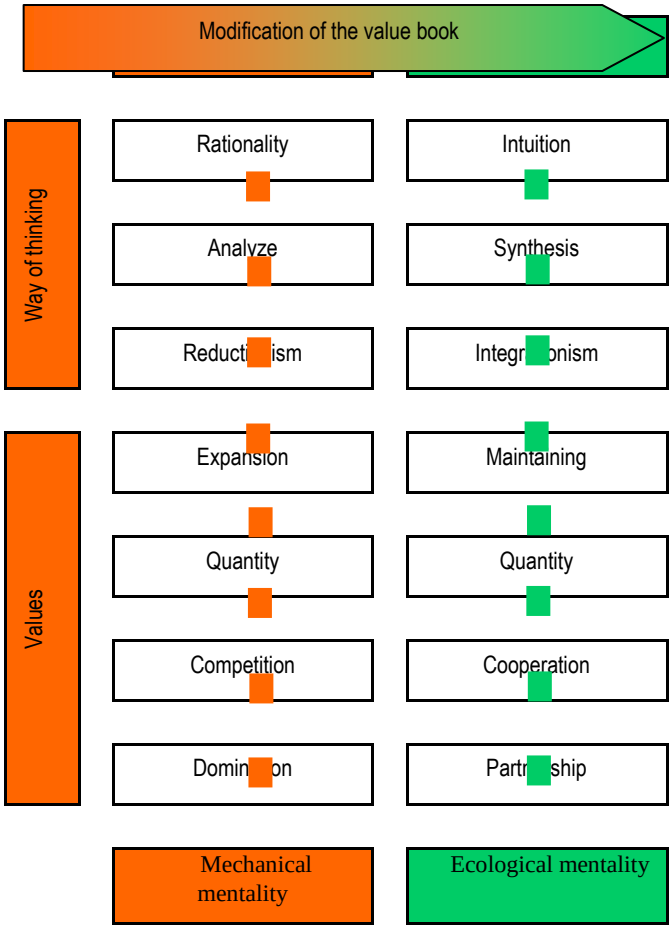

FIG. 2 FOR AN ECOLOGICAL BEHAVIOUR

An ecological component of the sustainable development - the *eco-development* (Mitroi, 2001) asserted by the Declaration of the IUCN (International Union for the Conservation of Nature) within the habitat in 1976, the sustainable eco-development is not only an operational concept, but a purpose in itself which entails the redefinition of the development strategies both in the developed countries and in the developing ones. This implies the rational arrangement and exploitation of the Earth or at least, of some endangered regional sectors, observing the legitimate interests of the human being.

On the contrary, within the complex framework of the notion of economic sustainable development, th*e human development* is the *objective*, and *the economic growth* in interdependence with the environment represents *the means.*

Ecologically speaking, the general principle of the sustainable development also entails a compatibility with and a partnership between the economy and the environment manifested in the form of various interactions, with effects which unfortunately are still unknown for the time being (Mazilu, 2007).

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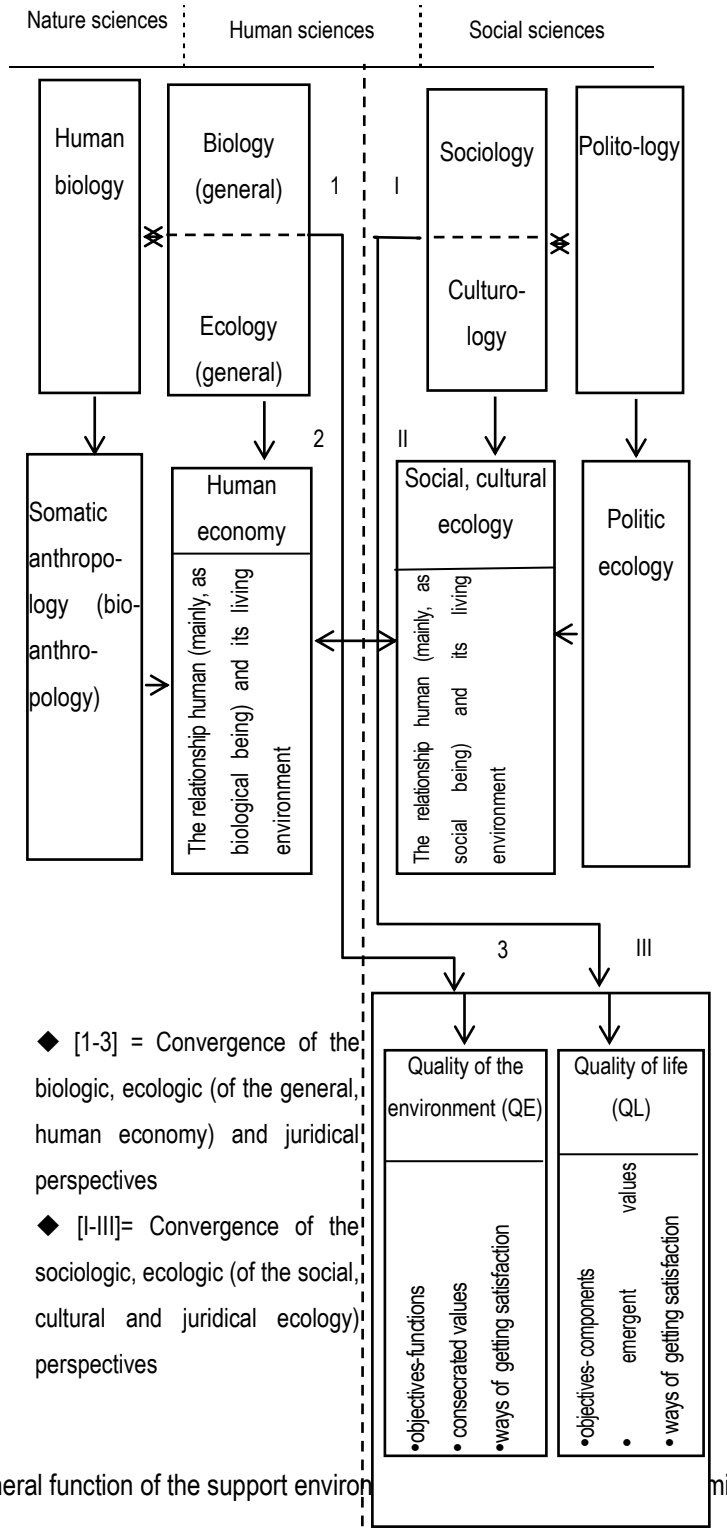
Table 1 – The convergence of some sciences subjects) and the emergence of the specialized branches



Starting from the general function of the support environ mic functions of:

- Provider of natural resources;

- Residues receiver;
- Provider of utilities for: society, individual;
- Sustainable eco-development (S.E.D.) requires paying particular attention to the fundamental component – environment or natural capital (Mazilu, 2008)

The relationship between the environment and the system of national economy is currently conceived on the basis of the circular pattern:

- *The natural resources – production – consumption* **–** *environment* (the linear patterns had been initially approached and adapted).
- The sustainable eco-development, analyzed from the point of view of the relationship between the economy and environment (natural capital) is based on the following *fundamental criteria:*
- The consumption of non-regenerative resources should be done in stages so as to be carried out (compensated);
- The stock of regenerative resources (solar, aeolian, hydraulic and so on energy) should decrease over time, in the conditions of providing a life standard of the population which should register significant increases;
- The technological progress and science influence both the saving of regenerative resources and/or non-regenerative, and of the substitution between them;

The drawing up of some programs of actions, steps and sets of policies: economic, social, ecological, technological, sanitary, which should meet the objectives of the sustainable eco-development.

In conclusion, the sustainable eco-development entails the existence of a compatibility and of a dynamic balance between the resources and their consumption, between the ecological, technological, economical system, between the employment rate and the natural regeneration rate of the resources, between the quantity of pollutants and the level of the assimilative, of sustainability and even supportability capacity of the environment (Mazilu et. al., 2009).

Here, there occurs the role of the strategies regarding the achievement of the environment policy which consolidate the principle of subsidiary (that is, the assignment of responsibilities to member states (MS), while the EU establish the general framework, the objectives, which should be taken into consideration) and tries to replace the traditional vertical approach, of the command-and-control type, by promoting an alternative pattern for the achievement of the environmental objectives of the EU. One may say that

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these strategies are a kind of "auxiliary instruments", which complete the standard instruments and which operate as stimulants with the purpose of taking steps for the protection of the environment which emphasize the tendency towards an approach based on the principle of volunteer work. Thus, this is all about:

- Sustainable development,
- The promotion program of the NGOs active in the domain of the environment protection,
- Products Integrated Policy (PIP),
- Environment protection and pollution reduction volunteer agreements,
- Environment taxes and duties within the Unique Market ,
- The European strategy on environment and health.

These are the result of the new approach of the *Action Plan for the Environment - APE* and of the innovative tendency of APE 6, which specifies the increase in the number of the instruments for the implementation of the environmental policy and which promotes the horizontal and integrated actions.

Thus, in the light of the recent integration into the European Union, of the member states, Romania included, which took part in the Conference "Environment for Europe" (EfE) together with other 55 member states, in October, in Serbia, Beograd (the Declaration from Beograd), it has been established that it is necessary a concrete reform plan EfE, which the Environment Policies Committee of UNECE (United Nations Economic Commission for Europe) is to develop together with the EfE partners by the following session of UNECE in 2009.

Key areas which will be the subject of this reform are the following:

- the consolidation of the institutional capacity;
- the continuation of the monitoring and assessment process of the environment quality in the area and its improvement;
- new priorities relevant to the region, which are not covered by other cooperation instruments concluded among the countries;
- transfrontier and sub regional cooperation issues;

Although useful, the Beograd Assessment Report – the fourth – requires some improvements so that its major objectives could be achieved in an accelerated manner, taking into consideration the alarming data which were sent and which requires imperatively interventions: over 100 million people in the pan-European area do not have access to drinkable water and adequate sanitary systems. The biodiversity is in decline, aggravated by the impact of the climatic changes, and the transports and the faulty

management of the residues, particularly of the hazardous chemicals and residues, continue to be major factors of pollution.

A general interest theme regarding the agenda of the Conference was the education for a sustainable development in the spirit of PPP (PEOPLE-PLANET-PROFIT), which estimate the involvement of all the social partners, including the civil society and the trades, in the process of the education for the environment. (Töffler, 1991).

The assumption of the social, ecological responsibility within the context of the sustainable development of the society, due to the fact that the situation needs to be solved rapidly, both the economist and the ecologist, are forced to assume the risk of exceeding the boundaries of their subject, accepting the inherent critics as something which should one should be going through, without any bitterness, as a social duty … even with the risk of wandering into a maze of theories and disputes insufficiently understood, this article being an example of a positive answer to what the above mentioned Harvard Professor tries to draw the attention, actually inherently, upon the imperativeness of an education for the environment, which brings itself moral benefits both to the one practicing it and to its direct beneficiary.

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